Amendments to the Drawings:

Please replace Figures 1-5 and 8 with the attached replacement sheets.

Attachment: Replacement Sheets

REMARKS

Applicant respectfully submits this Amendment and Response in reply to the Official Action dated April 14, 2009. Applicant submits that the Amendment and Response is fully responsive to the Official Action for at least the reasons set forth herein.

Applicant notes that Figures 1-5 and 8 have been amended herewith. The replacement sheets are appended hereto. Figures 1-5 have been labeled "PRIOR ART". Figures 5 and 8 have been amended to correct a minor typographical error. Specifically, the word encoder has been amended to "decoder" in Figure 5. The labeling of element 15 has been amended for consistency with the specification, i.e., the symbol mapping portion in Figure 8.

No new matter has been added to the application by way of the aforementioned amendments.

Claims 1-3, 10-15, 22-27, and 34-47 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshii Isamu et al., JP2003032226 (hereinafter "Yoshii") in view of Applicant's Admitted Prior Art ("AAPA"). Claims 1, 13, 25, and 37 were also rejected under the same section as being unpatentable over Yoshii in view of Nishio et al., U.S. Patent Pub. 2006/0215603 (hereinafter "Nishio").

Applicant respectfully disagrees with the rejection and traverses with at least the following analysis.

Applicant submits that the references, whether taken alone, or in any proper combination thereof, fail to teach or suggest each and every limitation of the claims.

Specifically, the references fail to teach or suggest that the correspondence is different for each transmission signal, as claimed.

The Examiner asserts that Yoshii teaches all of the limitations of the independent claims except the feature of the correspondence being **different** for each transmission signal.

However, the Examiner contends that either the AAPA or Nishio teaches this feature. AAPA teaches that a unique hopping pattern is generated for each transmitter (not necessarily for each transmission signal). "A hopping pattern generating portion 84 produces a hopping pattern Shp1 unique to the transmitter". Page 3. Nishio simply discloses using a hopping pattern. Nishio does not state that the patterns are different for each signal.

Accordingly, Applicant submits that the claims are patentable over the cited references.

Claims 4-9, 16-21, and 28-33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Yoshii, the AAPA and Nishio.

Applicant respectfully disagrees with the rejection and traverses with at least the following analysis.

Claim 4 recites, *inter alia*, wherein the transmitting portion comprises scheduling means for reducing the number of **transmission sequences** when a reception quality at the receiving portion is **lower than a predetermined first threshold** and for increasing the number of **transmission sequences** when the reception quality is higher than a **predetermined second threshold** (similarly recited in claims 5-9, 16-21 and 28-33).

Applicant submits that Nishio fails to teach a first and second threshold. Notably, Nishio teaches selecting small blocks when the delay variance in the propagation path is large and selecting large blocks when the delay variance is small. Paragraph 0103 states that "the block size determining section 852 selects small blocks for a cell having large delay variance in the propagation path based on the information on the delay variance output from a plurality of base stations and selects large blocks for a cell having small delay variance." However, the reference

does not mention how the system determines large or small. Additionally, the reference does not mention any threshold(s). The claimed invention uses two different thresholds. Accordingly, claims 4-9, 16-21 and 28-33 are patentable over the cited references.

Moreover, claims 5, 16, 17, 29 and 30 are patentable over the cited references based at least upon the following additional reasons. Nishio teaches controlling the **block size**. The Official Action equates block size with the number of transmission sequences. However, in the claimed invention, the number of transmission sequences is the number of subparts for each user. While the block size is indirectly related to the number of transmission sequences, the block size is not the same as the number of transmission sequences. Nishio defines the block size as a number of subcarriers. The block size is controlled such that the amount of control information in the block is not too large.

Furthermore, the references do not teach which sequence should be reduced or that the reduction is perform successively. For example, claim 5 recites, *inter alia*, wherein the scheduling means reduces the number of transmission sequences successively from the transmission sequence for which the reception quality at the receiving portion for each transmission sequence is low. Once again, Nishio simply teaches reducing the block size.

Additionally, Nishio does not teach changing the number of transmission antennas.

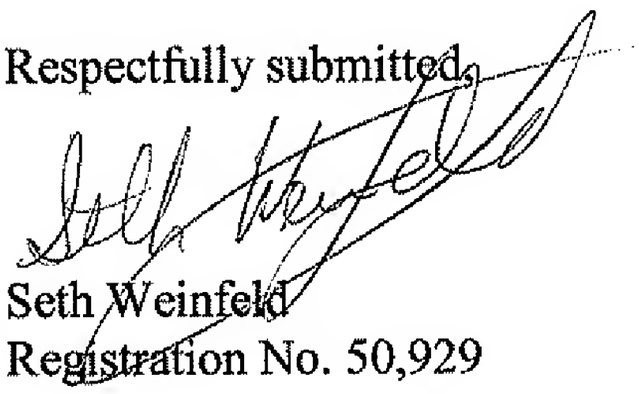
For example, claim 8 recites, *inter alia*, scheduling means for reducing the number of transmission antennas assigned to the transmission sequences when a reception quality at the receiving portion is lower than a predetermined first threshold and for increasing the number of transmission antennas assigned to transmission sequences when the reception quality is higher than a predetermined second threshold (similarly recited in claims 9, 20, 21, 32 and 33).

Accordingly, claims 4-9, 16-21, and 28-33 are patentable over the cited references.

Based upon the foregoing, Applicant respectfully requests that the Examiner withdraw the rejections of claims 1-37 pursuant to 35 U.S.C. § 103(a).

In conclusion, Applicant submits that the application is in condition for allowance and henceforth solicits a Notice of Allowability. Should the Examiner believe that a telephone conference would expedite allowance of the application; the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



Seth Weinfeld
Registration No. 50,929

SCULLY, SCOTT, MURPHY & PRESSER, P.C.
400 Garden City Plaza – Suite 300
Garden City, New York 11530
(516) 742-4343
SMW:reg